IN THE SPECIFICATION:

Please amend the specification as follows:

Please substitute the paragraph beginning at page 1, line 6, with the following.

-- The present invention relates to a positioning apparatus and an atmosphere substituting method applicable to a semiconductor exposure apparatus and the like, and an exposure apparatus and a device manufacturing method capable of using the positioning method and atmosphere substituting method. In recent years, an exposure technique using a synchrotron radiation beam is under development to cope with ~~shrink~~ the shrinkage in feature size of semiconductor device. When a synchrotron radiation beam is used, attenuation of X-rays in air becomes a problem. In order to prevent this problem, for example, according to a method proposed in Japanese Patent Laid-Open No. 2-156625, an exposure positioning mechanism is set in a chamber having an He atmosphere with less X-ray attenuation, and He is used also as the working fluid for a static pressure type bearing used in the exposure positioning mechanism. --

Please substitute the paragraph beginning at page 5, line 14, and ending on page 6, line 1, with the following.

-- According to the present invention, a first device manufacturing method including the atmosphere substituting step of substituting a gas in a chamber incorporating a positioning apparatus using a static pressure gas bearing from a first gas to a second gas and the exposure step of positioning a target exposure substrate with the positioning apparatus and exposing a predetermined pattern after the atmosphere substituting step is characterized by comprising the

second gas supply step of supplying the second gas to the static pressure gas bearing in substituting the gas in the atmosphere substituting step. Also, in this case, when substituting the second gas for the first gas, the second gas can quickly reach a purity at which exposure is possible. As a result, devices can be efficiently manufactured. --

Please substitute the paragraph beginning at page 7, line 20, with the following.

-- Fig. 9 is a flow chart showing a process in a prior art arrangement; --

Please substitute the paragraph beginning at page 8, line 2, with the following.

-- In preferred embodiments of the present invention, when substituting the gas in the chamber from the first gas to the second gas, the gas in the chamber is substituted. The second gas is supplied to a static pressure gas bearing before a start of, simultaneously with, or after a start of substituting the gas. Note that the second gas is He, that the chamber is of an exposure apparatus, and that the exposure apparatus is an X-ray exposure apparatus employing a synchrotron radiation beam as an exposure beam. Further, the exposure apparatus is an exposure apparatus employing ~~a F2~~ an F_2 laser beam as an exposure beam. Sometimes, substitution from the static pressure gas bearing is performed after the second gas is supplied tot he static pressure gas bearing. The embodiments of the present invention will be described in more detail. --

Please substitute the paragraph beginning at page 8, line 19, and ending on page 9, line 5, with the following.

-- Referring to Fig. 1, reference numeral 1 denotes a mask; 2, a mask surface plate for supporting the mask 1; 3, a wafer; 4a, a wafer chuck; and 4b, a fine movement stage. The wafer 3 is drawn by vacuum suction and held with the mask 1, mask surface plate 2, wafer chuck 4a, and fine movement stage 4b. Reference numeral 5 denotes a coarse movement stage on which the fine movement stage 4b is set. The fine movement stage 4b is movable finely on the coarse movement stage 5. The coarse movement stage is movable ~~on~~ in a long stroke. Reference numeral 6 schematically shows a gas bearing which supports and guides the coarse movement stage 5. The gas bearing 6 will be called an LHB hereinafter, which is an acronym for a linear He bearing. --

Please substitute the paragraph beginning at page 9, line 6, with the following.

-- Referring to Fig. 1, ~~LHB6~~ LHB 6 is mounted on the side of a stage surface plate 7. However, the invention is not limited to this. For example, LHB 6 may be mounted on the coarse movement stage to be opposed against ~~the~~ a stage surface plate 7 discussed below. --

Please substitute the paragraph beginning at page 9, line 11, with the following.

-- Reference numeral 7 denotes a stage surface plate for supporting a wafer stage comprised of the fine movement stage 4b, coarse movement stage 5, and LHB 6 within a vertical plane. Referring to Fig. 1, the stage surface plate 7 supports the wafer stage within the vertical plane. However, the invention is not limited to this. For example, the stage surface plate 7 may support the wafer stage within the horizontal plane. ~~8,~~ Reference numeral 8 denotes a frame for

supporting the mask surface plate 2 and stage surface plate 7; 9, ~~a~~ support members 9 for supporting the frame 8 on a clean room floor 10; 11, support members for supporting the clean room floor 10 on a factory building floor 12; 13, a chamber for accommodating the exposure apparatus; and 14, a beryllium window for dividing a beam line 15, which is set at high vacuum during exposure from the chamber 13, and transmitting a synchrotron radiation beam through it. --

Please substitute the paragraph beginning at page 10, line 20, and ending on page 11, line 4, with the following.

-- Reference numeral 35 denotes a high-pressure He supply line; for supplying high-pressure He generated by the He circulating unit 30 to the LHB 6 through a high-pressure He supply valve 36; 37, a nitrogen supply unit for supplying nitrogen, in place of He, to the LHB 6 through a nitrogen supply valve 38 when operating the wafer stage in an atmosphere; 39, a vacuum exhaust pump 39 for evacuating the chamber 13 through a vacuum exhaust valve 40. The vacuum exhaust pump 39 is set in the chamber 13 having an exhausted atmosphere. ~~41,~~ Reference numeral 41 denotes a valve for releasing the pressure in the chamber 13 to the atmosphere. --

Please substitute the paragraph beginning at page 11, line 5, with the following.

-- Fig. 2 is a flow chart showing a process used when checking, in the exposure apparatus described above, the operation of the wafer stage in an He atmosphere set at an atmospheric

pressure. In this process, the respective portions of the apparatus are operated by a controller 50. The controller 50 ~~controls,~~ controls the wafer stage, the vacuum exhaust pumps 24 and 25, the He supply unit 26, the nitrogen supply unit 28, the He circulating unit 30, the nitrogen supply unit 37, the vacuum exhaust pump 39 and valve controller 51. Further, the controller 50 may control the above units on the basis of outputs from the sensors 21 and 22. The valve controller 51 controls an operation of opening and shutting the above valves, an amount of throttle of the valve when the valve is a variable valve, and the like. --

Please substitute the paragraph beginning at page 12, line 12, and ending on page 13, line 2, with the following.

-- When the process is started, as shown in Fig. 3, if the wafer stage is used, a nitrogen supply valve 38 is closed to stop nitrogen supply to an LHB 6 (step S11). At this point in time ~~point~~, all the valves are close except a bypass valve 17 of a beryllium window 14 (and an atmosphere release valve 41 when a chamber 13 is opened to the atmosphere). A high-pressure He supply valve 36 is open for a predetermined period of time to supply He to the LHB 6 (step S12). Then, (if the atmosphere release valve 41 is open, after it is closed, and) a vacuum exhaust valve 40 is opened to start evacuating the chamber 13. Since the bypass valve 17 is open, the chamber 13 and a beam line 15 communicate with each other, so that they are evacuated simultaneously. When an absolute pressure sensor 22 confirms that the chamber 13 is evacuated to a predetermined pressure, the vacuum exhaust valve 40 is closed (step S13). Subsequently, the bypass valve 17 is closed (step S14). --

Please substitute the paragraph beginning at page 13, line 3, with the following.

-- An exhaust valve 23 for the beam line 15 is opened, the beam line 15 is set at a higher vacuum by two vacuum exhaust pumps 24 and 25 (e.g., a turbo molecular pump and a dry pump) (step S15). Along with this, an He supply valve 27 is opened to introduce He into the chamber 13. He is filled into the chamber 13 until the pressure in the chamber 13 indicated by the absolute pressure sensor 22 reaches a predetermined pressure. After that, the He supply valve 27 is closed (step S16). --

Please substitute the paragraph beginning at page 13, line 23, with the following.

-- Fig. 9 shows a process similar to that of ~~a~~ the prior art arrangement. In Fig. 9, steps where the same processes as those of the embodiment of Fig. 3 are performed are denoted by the same step numbers as in Fig. 3. --

Please substitute the paragraph beginning at page 18, line 3, with the following.

-- <Embodiment of A Device Manufacturing Method> --

Please substitute the paragraph beginning at page 18, line 4, with the following.

-- An embodiment of a device manufacturing method utilizing the exposure apparatus described above will be described. Fig. 10 shows the flow of the manufacture of a microdevice

(e.g., a semiconductor chip such as an IC or LSI, a liquid crystal panel, a CCD, a thin film magnetic head, a micromachine, or the like). --

Please substitute the paragraph beginning at page 19, line 18, with the following.

-- When the production method of this embodiment is used, a large-size device, which is conventionally difficult to manufacture, can be manufactured at a low cost. --

Please substitute the paragraph beginning at page 19, line 21, and ending on page 20, line 3, with the following.

-- As has been described above, according to the present invention, when substituting the gas in the chamber from the first gas to the second gas, for example, the second gas is supplied to a static pressure gas bearing before a start of, simultaneously with, or after a start of exhausting the gas from the chamber. Therefore, the first gas remaining in the static pressure gas bearing can be exhausted easily, so that a time required for the second gas to reach a predetermined impurity can be shortened. --